

1. Status of the claims

Claims 56, 84, 85, 105, 106, and 122 have been amended to recite a composition that induces a HLA 2.1-restricted cytotoxic T lymphocyte (“CTL”) response. These claims add no new matter. Support for this amendment can be found, e.g., in the specification on page 4, lines 1-5.

Claims 56, 85, 111, 112, and 127 have been amended to recite a therapeutically effective dose and a pharmaceutical excipient. These claims add no new matter. Support for these claims can be found, e.g., in the specification on page 24, line 16 to page 21 line 15 and page 24, line 6.

Claims 58 and 87 have been amended to recite peptide synthesized or isolated from naturally occurring sources. This amendment adds no new matter. Support for this amendment can be found, e.g., in the specification on page 12, lines 9-15.

Claims 56, 85, and 106 have been amended to recite a peptide comprising an epitope consisting of about 8-11 residues that binds to an HLA 2.1 molecule. This amendment adds no new matter. Support for this amendment can be found, e.g., in the specification on page 4, lines 34-36.

Claims 56, 57, 85, 86, 106 and 107 have been amended to recite an A2.1 motif, wherein the first anchor, at position two from the N-terminus of the epitope, is selected from V, A, or T, and the carboxyl terminus of the epitope is selected from L, I, V, M, or A. This amendment adds no new matter. Support for this amendment can be found, e.g., in claim 1 as originally filed.

Claims 56, 60, 61, 85, 89, 90, 106, 109, 110, 125, and 126 have been amended to recite that the peptide fragments of the invention do not comprise an entire native antigen. This amendment adds no new matter. Support for this amendment can be found, e.g., in the specification on page 5, lines 8-18.

Claims 59, 60, 88, 89, 108, 109, 124, and 125 have been amended to recite a nucleic acid encoding a peptide of the invention. These amendments add no new matter. Support for these amendments can be found, e.g., in the specification on page 19, lines 18-29..

Claims 62 and 91 recite a cancer associated antigen. Claims 67 and 96 recite a pathogenic antigen. These amendments add no new matter. Support for these amendments can be found, e.g., in the specification on page 5, lines 29 -32 and page 26, line 14..

Claims 63 and 92 recite a HER2/neu antigen. This amendment adds no new matter. Support for this amendment can be found, e.g., in the specification on page 27, line 21.

Claims 64 and 93 recite a p53 antigen. This amendment adds no new matter. Support for this amendment can be found, e.g., in the specification on page 27, line 21.

Claims 65 and 94 recite a MAGE antigen. This amendment adds no new matter. Support for this amendment can be found, e.g., in the specification on page 27, line 9.

Claims 66 and 95 recite a prostate-associated antigen. This amendment adds no new matter. Support for this claim can be found, e.g., in the specification on page 27, line 19.

Claims 67 and 97 recite an HIV antigen. This amendment adds no new matter. Support for this amendment can be found, e.g., in the specification on page 3, line 23.

Claims 68 and 98 recite an HBV antigen. This amendment adds no new matter. Support for this amendment can be found, e.g., in the specification on page 3, lines 21-22.

Claims 69 and 99 recite an HCV antigen. This amendment adds no new matter. Support for this amendment can be found, e.g., in the specification on page 3, lines 21-22.

Claims 70 and 100 recite a malaria antigen. This amendment adds no new matter. Support for this amendment can be found, e.g., in the specification on page 18, line 1.

Claims 71 and 101 recite an HPV antigen. This amendment adds no new matter. Support for this amendment can be found, e.g., in the specification on page 3, lines 22-24.

Claims 73 and 102 recite a peptide fragment of 8, 9, 10, or 11 residues. Claims 77 and 115 recite a peptide of 9 or 10 residues. This amendment adds no new matter. Support for this amendment can be found, e.g., in the specification on page 3, lines 35-36.

Claims 74 and 103 recite a peptide fragment of less than about 15 residues. This amendment adds no new matter. Support for this amendment can be found, e.g., in the specification on page 3, line 34.

Claims 76, 114 and 123 recite a binding affinity for the peptide, wherein the binding affinity is represented by a ratio of at least 0.01, wherein the ratio is the ratio of an IC₅₀

for a standard peptide to an IC₅₀ of the peptide fragment. This amendment adds no new matter. Support for this amendment can be found, e.g., in the specification of USSN 08/205,713, incorporated by reference, on page 39, which describes that binding affinity can be expressed as a relative value to a reference peptide. Support can also be found the specification of USSN 08/205,713, incorporated by reference, e.g., on page 76, lines 31-34, where the results indicate that a binding value of at least 0.01 correlates with the ability to induce CTL.

Claims 61, 90 and 110 relate to a peptide fragment that is a longer peptide fragment. This amendment adds no new matter. Support for this amendment can be found, e.g., in the specification on page 12, lines 16-18, which describes that the peptides can be a variety of lengths.

Claims 75, 104, and 113 recite testing *in vitro* and *in vivo*. These amendments add no new matter. Support for these amendments can be found, e.g., in the specification on page 7, line 7.

Claims 56 and 106 recite a peptide linked to a molecule. These claims add no new matter. Support for these claims can be found, e.g., in the specification on page 12, lines 9-22.

Claims 78 and 116 recite a peptide linked to a lipid. These claims add no new matter. Support for these claims can be found, e.g., in the specification on page 18, lines 3-31.

Claims 79 and 117 recite a peptide linked to a T helper peptide. These claims add no new matter. Support for these claims can be found, e.g., in the specification on page 17, lines 15-21.

Claims 80 and 118 recite a peptide linked to a Pan DR binding peptide. These claims add no new matter. Support for these claims can be found, e.g., in the specification of USSN 08/205,713, incorporated by reference, on page 18, line 37 to page 19, line 2.

Claims 81 and 119 recite a peptide linked to a CTL peptide and claims 82 and 120 recite a peptide linked to another peptide. These claims add no new matter. Support for these claims can be found, e.g., in the specification on page 24, lines 30-31.

Claims 83 and 121 recite a peptide linked to a carrier. These claims add no new matter. Support for these claims can be found, e.g., in the specification on page 24, lines 26 to 38.

2. Rejections under 35 U.S.C. § 112, first and second paragraphs, and 35 U.S.C. §§ 102 and 103

As Applicants have canceled all pending claims and submitted new claims 56-127 for examination, the rejections in the November 9, 1998 Office Action are now moot. Applicants respectfully request that the Examiner withdraw the rejections.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 415-576-0200.

Respectfully submitted,



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